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**Tetra Tech EM Inc.**

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February 14, 2005

Mr. Nabil Fayoumi  
Remedial Project Manager (SR-6J)  
U.S. Environmental Protection Agency Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**Subject:      Technical Review Comments on "Creek Segment B Sampling Plan"**  
**Sauget Area 1 Site**  
**Sauget and Cahokia, St. Clair County, Illinois**  
**Technical Direction Document No. S05-0409-005**  
**U.S. EPA Contract No. 68-W-00-129**

Dear Mr. Fayoumi:

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) has reviewed the above-referenced document as part of its oversight activities for the Sauget Area 1 site in Sauget and Cahokia, St. Clair County, Illinois. The document, which is dated February 11, 2005, was received by START on February 11, 2005, and was prepared by Solutia, Inc., the potentially responsible party for the site. The document presents the plan for collecting soil samples in Segment B of Dead Creek in Sauget Area 1.

START's review of the document focused on assessing its technical adequacy. START's comments on the document are enclosed. An e-mail message will be transmitted to you that contains the comments formatted in WordPerfect 9.0. The hard copy comments constitute START's official deliverable.

If you have any questions regarding START's comments, please call me at (312) 856-8789.

Sincerely,

Rick Hersemann  
Tetra Tech START Project Manager

Enclosure

cc:      Lorraine Kosik, U.S. EPA START Project Officer (letter only)  
         Therese Gioia, Tetra Tech START Program Manager (letter only)

**ENCLOSURE**

**TECHNICAL REVIEW COMMENTS ON  
“CREEK SEGMENT B SAMPLING PLAN”  
SAUGET AREA 1 SITE  
SAUGET AND CAHOKIA, ST. CLAIR COUNTY, ILLINOIS**

**(One Page)**

**TECHNICAL REVIEW COMMENTS ON  
“CREEK SEGMENT B SAMPLING PLAN”  
SAUGET AREA 1 SITE  
SAUGET AND CAHOKIA, ST. CLAIR COUNTY, ILLINOIS**

**GENERAL COMMENTS**

1. The text describes the rationale for collecting soil samples from 18 transects in Segment B of Dead Creek. The transects will be divided into 50-foot grids centered on the center line of the creek channel, and soil samples will be collected from the center of each grid at 1-foot intervals to a depth of 5 feet. The samples from a given location will be analyzed for polychlorinated biphenyls (PCB), zinc, mercury, or bis(2-ethylhexyl)phthalate, depending on whether concentrations of the constituents at that location exceeded risk-based concentrations (RBC) during the 2002 sampling event. However, the plan does not include a figure that shows (1) the 50-foot grid pattern, (2) the proposed sampling locations, and (3) the constituents that will be analyzed for at each sampling location. The plan should be revised to include a figure that shows all of this information. Also, the plan should be revised to identify the RBCs for PCBs, zinc, mercury, and bis(2-ethylhexyl)phthalate.
2. The text calls for collecting soil samples from the center of the creek only at the transects where constituent concentrations were found to exceed RBCs in 2002. For PCBs, most of the samples with RBC exceedances in 2002 were collected from the east part of the creek, not the center. Collecting soil samples only from the center of the creek may not adequately define PCB hot spots at depth in Segment B. Also, PCB-contaminated soil could have been carried downstream to transects that were not contaminated in 2002. Therefore, all the transects should be sampled at depth at the center of each 50-foot grid, and the samples should be analyzed for PCBs. In addition, all creek locations (east, west, or center) where PCB concentrations were found to exceed the RBC in 2002 should be resampled at depth, and the samples should be analyzed for PCBs. The text should be revised to address these issues, and a figure that shows the sampling locations should be included in the plan.